

REMARKS

This application has been reviewed in light of the Office Action dated September 9, 2004. Claims 1-4, 7, 8, 10-12, and 14-23 are now pending in this application. Claims 5, 6, 9, and 13 have been canceled, without prejudice or disclaimer of subject matter. Claims 1-4, 11, and 15-19 have been amended to define more clearly what Applicant regards as his invention. Claims 20-23 have been added to provide Applicant with a more complete scope of protection. Claims 1 and 16-23 are in independent form. Favorable reconsideration is requested.

Claim 16 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The claims have been carefully reviewed and amended as deemed necessary to ensure that they conform fully to the requirements of Section 112, second paragraph, with special attention to the points raised in paragraph 3 of the Office Action. It is believed that the rejection under Section 112, second paragraph, has been obviated, and its withdrawal is therefore respectfully requested.

Claims 1, 7, 9-11, and 15-18 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 6,735,740 to Sakai et al. in view of U.S. Patent 5,260,810 to Kanno et al.; Claims 2 and 3, as obvious from Sakai et al. in view of Kanno and U.S. Patent 5,392,137 to Okubo; Claim 4, as being obvious from Sakai et al. in view of Kanno, Okubo, and U.S. Patent 5,953,464 to Harrington; Claims 5 and 6, as being obvious from Sakai et al. in view of Kanno et al. and U.S. Patent 5,778,092 to MacLeod et al.; Claims 8 and 13, as being obvious from Sakai et al. in view of Kanno et al. and Harrington; Claim 12, as being obvious from Sakai et al. in view of Kanno et al. and U.S. Patent 5,729,664 to

Ishikawa; and Claim 14, as being obvious from Sakai et al. in view of Kanno et al. and U.S. Patent 5,719,967 to Sekine.

First, cancellation of Claims 5, 6, 9, and 13 renders the rejections of those claims moot.

Claim 1 is directed to an image processing apparatus including input means, generating means, first pixel density converting means, second pixel density converting means, and output means. The input means inputs color image data, and the generating means generates flag data indicating an attribute of an image corresponding to the color image data from the color image data. The first pixel density converting means is adapted to pixel density convert the image data at a designated magnification, and the second pixel density converting means is adapted to pixel density convert the flag data in accordance with the designated magnification. The output means is adapted to make a process of the pixel density converted image data different every pixel in accordance with the flag data and output the processed image data. The second pixel density converting means performs a logical arithmetic operating process of flag values using a plurality of pixels near a target pixel when the designated magnification is reduction, and performs a processing using a nearest neighboring pixel of the target pixel when the designated magnification is enlargement.

One notable feature of Claim 1 is performing a logical arithmetic operating process of flag values using a plurality of pixels near a target pixel when the designated magnification is reduction, and performing a processing using a nearest neighboring pixel of the target pixel when the designated magnification is enlargement. Support for this

feature is found in the present specification, at least from page 24, line 23, to page 25, line 5.^{1/}

Sakai et al., as understood by Applicant, relates to a document composite image display method and device utilizing categorized partial images. Sakai et al. apparently discusses that when partial image data including attribute data is displayed, the relevant partial image data is displayed in reduced size. However, Sakai et al. is silent as to how the attribute data is reduced when the partial image data is displayed. Applicant has found nothing in Sakai et al. that would teach or suggest performing a logical arithmetic operating process of flag values using a plurality of pixels near a target pixel when the designated magnification is reduction, and performing a processing using a nearest neighboring pixel of the target pixel when the designated magnification is enlargement, as recited in Claim 1.

Kanno et al., as understood by Applicant, relates to image processing with an improved dithering scheme, however, nothing has been found in that patent that, in Applicant's opinion, would remedy the deficiencies of Sakai et al. discussed above.

Accordingly, Claim 1 is believed to be clearly allowable over Sakai et al. and Kanno et al., either separately or in any permissible combination (if any).

Independent Claims 17 and 18 are method and computer-readable storage medium claims, respectively, corresponding to apparatus Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

^{1/}It is of course to be understood that the references to various portions of the present application are by way of illustration and example only, and that the claims are not limited by the details shown in the portions referred to.

Claim 16 is directed to an image processing apparatus including input means, generating means, first pixel density converting means, second pixel density converting means, and output means. The input means inputs color image data, and the generating means generates flag data indicating an attribute of an image corresponding to the color image data from the color image data. The first pixel density converting means is adapted to pixel density convert the image data at a designated magnification, and the second pixel density converting means is adapted to pixel density convert the flag data in accordance with the designated magnification. The output means is adapted to make a process of the pixel density converted image data different every pixel in accordance with the flag data and output the processed image data. The second pixel density converting means makes a converting method different in accordance with attributes of the flag data.

One notable feature of Claim 16 is making a converting method different in accordance with attributes of flag data. Thus, according to the apparatus of Claim 16, it is possible to appropriately perform the pixel density converting according to the flag values. Support for this feature is found in the present specification, at least from page 25, line 6, to page 26, line 4.

Applicant has found nothing in Sakai et al. that would teach or suggest reduction of a partial image based on attribute data. Applicant has found nothing in Sakai et al. that would teach or suggest making a converting method different in accordance with attributes of flag data, as recited in Claim 16.

Nothing has been found in Kanno et al. that, in Applicant's opinion, would remedy the deficiencies of Sakai et al. discussed above.

Accordingly, Claim 16 is believed to be clearly allowable over Sakai et al. and Kanno et al., either separately or in any permissible combination (if any).

Independent Claims 19 and 20 are method and computer-readable storage medium claims, respectively, corresponding to apparatus Claim 16, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 16.

Claim 21 is directed to an image processing apparatus including input means, generating means, first pixel density converting means, second pixel density converting means, and output means. The input means inputs color image data, and the generating means generates flag data indicating an attribute of an image corresponding to the color image data from the color image data. The first pixel density converting means is adapted to pixel density convert the image data at a designated magnification, and the second pixel density converting means is adapted to pixel density convert the flag data in accordance with the designated magnification. The output means makes a process of the pixel density converted image data different every pixel in accordance with the flag data and outputs the processed image data. The first pixel density converting means gives an offset to a start position of an output pixel position so that an output pixel value after pixel density converting the image data is generated by interpolation calculation between the neighboring adjacent pixels.

One notable feature of Claim 21 is giving an offset to a start position of an output pixel position so that an output pixel value after pixel density converting the image data is generated by interpolation calculation between the neighboring adjacent pixels.

Support for this feature is found in the present specification, at least from page 26, line 17, to page 27, line 5.

Sakai et al. is silent as to a start position of an output pixel position after pixel density converting. Applicant has found nothing in Sakai et al. that would teach or suggest giving an offset to a start position of an output pixel position so that an output pixel value after pixel density converting the image data is generated by interpolation calculation between the neighboring adjacent pixels, as recited in Claim 21.

Nothing has been found in Kanno et al. that, in Applicant's opinion, would remedy the deficiencies of Sakai et al. discussed above.

Accordingly, Claim 21 is believed to be clearly allowable over Sakai et al. and Kanno et al., either separately or in any permissible combination (if any).

Independent Claims 22 and 23 are method and computer-readable storage medium claims, respectively, corresponding to apparatus Claim 21, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 21.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

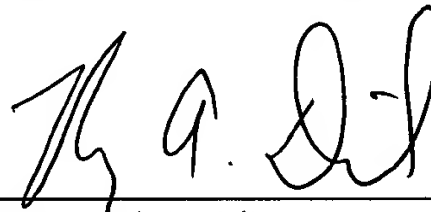
The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of

the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. A. DiPerna', written over a horizontal line.

Raymond A. DiPerna
Attorney for Applicant
Registration No.: 44,063

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200